SOKOLOVSKIY, Yuriy Yefimovich; ZASTRZHEMBSKIY, L.A., retsenzent; ROMANOV, V.G., retsenzent; KUZOVLEVA, T.V., red. izd-va; YERMAKOVA, T.T., tekhn. red.

[Along the blue roads of Moscow and its environs guidebook] Po golubym dorogam Moskvy i Podmoskov'ia; putevoditel'. Moskva, Izd-vo "Rechnoi transport," 1961. 166 p. (MIRA 14:8)
(Moscow Valley—Guidebooks)
(Moscow Valley—Inland water transportation)

KRIVORUCHKO, M.G.; KURLAT, F.L.; MIKHAYLOV, M.A.; SOKOLOVSKIY, Yu.Ye.; YASTRZHEMBSKIY, L.A., red.; STRZHIZHOVSKIY, F., red.; YANCHUK, A., red.; SHLYK, M., tekhn. red.

[Across the streets of Moscow; guidebook]Po ulitsam Moskvy; putevoditel'. Moskva, Mosk.rabochii, 1962. 429 p. (MIRA 15:9)

1. Rabotniki Moskovskogo gorodskogo ekskursionnogo byuro (for Krivoruchko, Kurlat, Mikhaylov, Sokolovskiy). 2. Direktor Muzeya istorii i rekonstruktsii Moskvy (for Yastrzhembskiy).
(Moscow—Guidebooks)

CHEREPANOV, Vladimir Aleksandrovich; YASTRZHEMBSKIY, L.A., red.; KREKSHINA, L., red.; KUZNETSOVA, A., tekhn.red.

[Sadovoe Ring] Sadovoe kol'tso. Moskva, Moskovskii rabochii, 1963. 157 p. (MIRA 17:2)

RIVKIN, I.Ya., inzh.; YASTRZHEMBSKIY, P.Ya., inzh., red.; GARNUKHIN, Ye.K., tekhn. red.

[Inventions; manufacture of instruments and automatic control devices]Sbornik izobretenii; priborostroenie i sredstva avtomatizatsii. Moskva, TSentr. biuro tekhn. informatsii, 1961. 286 p. (MIRA 15:12)

1. Russia (1923- U.S.S.R.) Komitet po delam izobreteniy i otkrytiy.

(Instruments--Technological innovations)
(Automatic control)

KAZIMIR, N.Ye., inzh.; NEKLYUDOV, S.M., inzh.; YASTRZHEMBSKIY, P.Ya., red.; KAMYSHNIKOVA, A.A., tekhn. red.

[Inventions; railroad transportation]Sbornik izobretenii; zheleznodorozhnyi transport. Moskva, TSentr. biuro tekhn. informatsii, 1962. 297 p. (MIRA 15:10)

1. Russia (1923- U.S.S.R.)Komitet po delam izobreteniy i otkrytiy.
(Railroads--Technological innovations)

MIKILECHKO, A.N.; YASTRZHEMBSKIY, V.D.

System for measuring amplitude and phase oscillations at different points in a diffuser. Izv. vys. ucheb. zav.; radiotekh. 6 no.5:564-566 S-O '63. (MIRA 17:1)

1. Rekomendovano kafedroy radioveshchaniya i elektroakustiki Odesskogo elektrotekhnicheskogo instituta svyazi.

LI, A.F.; GREBENNIKOVA, O.T.; YASUS, N.S.

Microstructures of ilmenites and their practical value.
Zap.Vost.-Sib.otd.Vses.min. ob-va no.1:74-82 '59. (MIRA 14:7)

1. Irkutskiy Nauchno-issledovatel'skiy institut redkikh metallov.
(Ilmenite)

ACC NR: AR7000835 SOURCE CODE: UR/0058/66/000/009/A047/A047

AUTHOR: Tolutis, V. B.; Yasutis, V. V.

TITLE: Effect of substrate temperature on the macro- and microstructure of thin cadmium telluride film

SOURCE: Ref. zh. Fizika, Abs. 9A400

REF SOURCE: Lit. fiz. sb., v. 5, no. 4, 1965, 495-502

TOPIC TAGS: cadmium telluride, thin film, ~~thin film microstructure~~ grain structure, ~~thin~~ metal film, ~~macrostructure~~, ~~substrate temperature~~, ~~thin film structure~~, ~~thin film~~, growth, ~~mechanism~~, polycrystalline film, light temperature effect

ABSTRACT: A study was made of the parameters of the macro- and microstructure of sputtered thin CdTe film as a function of substrate temperature (T_n) within the 120—245C range. Two substantially different structural regions, separated by a narrow transitional area with the point of separation at $T_n \approx$ 185C, were identified in the film on the basis of several factors: the nature of the relationship between the parameters of the distribution curve for the area of the film's visible structure in relation to the grain size of the crystals (maximum distribution func-

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ACC NR: AR7000835

tion values, distribution curve half-widths), the mean crystal grain area values, the effective CdTe accommodation coefficient, the texture parameters, and the correlation between the cubic and hexagonal phases of the film as a function of T_n. It was found that the causes of such a sharp demarcation in the structure of the film as a function of T_n are the conditions for the condensation of Te, which determine the mechanism of the growth of the CdTe layer as a whole. A model of the mechanism of the growth of the CdTe film is given. [Translation of abstract]

[SP]

SUB CODE: 20/

Card 2/2

23

DTI

AUTHOR: Tolutis, V. B.; (Tolutis, V.); Shimulite, Ye. A.; Yasutis, V. V., (Simulyte, E.); (Yasutis, V.)

TITLE: Comprehensive investigation of thin films of cadium telluride containing the elements of the first and third group as impurities. 1. Electromicroscopic study of cadium telluride film structure as a function of the concentration of copper and the temperature of the substratum

SOURCE: AN LitSSR. Litovskiy fizicheskiy sbornik, v. 4, no. 2, 1964, 267-274

TOPIC TAGS: cadium telluride film, film structure, copper, film deposition, electron microscopy, impurity concentration

ABSTRACT: The article considers the characteristics of the growth of CdTe films when the alloying of the film is carried out by the independent evaporation of CdTe and the impurity - copper. The purpose of this work was to determine the dependence of the film structure on the concentration of the introduced copper, and to determine the limiting active concentration of copper in the CdTe film. The study was carried out by means of electron microscopy and optical investigations of the impure CdTe films. The structure of the film obtained at different substratum tem-

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L 30076-65

ACCESSION NR: AT5002013

2

peratures was investigated as a function of the concentration of copper ranging from 10^{15} to 10^{21} cm^{-3}. It was established that the layers obtained on a cold substratum up to room temperature are greatly disordered and have no pronounced structure. With increasing concentration of copper their visible substructure is smoothed out. The films obtained on substrata heated to 150 and 250C have a pronounced structure. As the temperature increases the crystal size also increases. It is noted that structure size increases at high concentrations [illegible] was established that the limiting concentration of active copper does not exceed [illegible] cm^{-3}. It was found that the impurity phase is concentrated predominantly on the surface of the film. The optical studies were carried out by A. [illegible]. Orig. art. has 5 figures.

ASSOCIATION: Institut fiziki i matematiki Akademii nauk Litovskoy SSR (Physics and mathematics institute, Academy of sciences, Lithuanian SSR)

SUBMITTED: [illegible] ENCL: 00 SUB CODE: SS

NO REF SOV: 006 OTHER: 000

Card 2/2

YASVOIN, G.

PA 62T63

USSR/Medicine - Fish Apr 1948
Medicine - Teeth

"Construction and Genesis of Dentine in Osseus Fish (Pike and Carp)," G. Yasvoin, Inst Experimental Med, Leningrad, 3 pp

"Dok Akad Nauk SSSR, Nova Ser" Vol LX, No 2

Data on the formation of dentine and teeth in bony fish. Submitted by Academician I. I. Shmal'gauzen, 13 Feb 1948.

62T63

L 58464-65 EWT(l)/EWG(v) Pe-5/Pae-2 GW

ACCESSION NR: AR5011845 UR/0269/65/000/004/0015/0015
522.617

AUTHOR: Yaayavichyus, V.

TITLE: Use by the Vil'nyus observatory of a tricolar photometric system and its connection with the UBV system

SOURCE: Ref. zh. Astronomiya. Otd. vyp., Abs. 4.51.137

CITED SOURCE: Byul. Astron. observ. Vil'nyussk. un-ta, no. 10, 1964, 19-28

TOPIC TAGS: spectral sensitivity curve, effective wavelength, photometric system, tricol r photometric system

ABSTRACT: Calculations were made of the spectral-sensitivity curves and of the effective wavelengths for ultraviolet, blue, and yellow values, obtained on the 48-cm reflector at the Vil'nyus observatory. On the basis of theoretical and empirical observations of the accumulation of NGC 129, the reducing relationship between the Vil'nyus values of U_{vln}, B_{vln}, and V_{vln} and the values of U, B, and V was established. The theoretical and empirical equations of the relationship for blue and yellow values are in good agreement. The theoretical calculation for ultraviolet

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ACCESSION NR: AR5011845

values cannot be used for quantitative evaluations. Errors in the empirical conversion of values V_{vln} to the V system may reach $0^m.1$. Refs.: 14. A. Sharov

ASSOCIATION: none

SUBMITTED: 00 ENCL: 00 SUB CODE: OP

NO REF SOV: 000 OTHER: 000

Card 2/2

PETRIK, G. K.; YASYNOVA, A. A.; NAZAROVA, N. I.

Chemical-technological study of coals from the Kavak brown coal basin. Izv.AN Kir.SSSR.Ser.est.i tekh.nauk 4 no. 6: 77-82 '62. (MIRA 17:5)

YASYREV A.F.

112-1-1246

Translation from: Referativnyy Zhurnal, Elektrotekhnika, 1957, Nr 1, p. 193 (USSR)

AUTHOR: Yasyrev, A.F.

TITLE: Automatic Recorder of Charging a Blast Furnace (Avtomaticheskiy registrator zagruzki domennoy pechi)

PERIODICAL: Byul. Tsentr. in-t inform. M-va chernoy metallurgii, 1956, Nr 3, p.56

ABSTRACT: Bibliographic entry.

Card 1/1

NIKITIN, N.M.; YASYREV, A.P.

Conditions governing the formation of gypsum in the southern wing of the Moscow Basin. Izv. AN SSSR. Ser.geol. 27 no.7:59-69 Jl '62. (MIRA 15:6)

1. Tul'skaya kompleksnaya geologorazvedochnaya ekspeditsiya.
(Moscow Basin--Gypsum)

YASYREV, A.P.

Trace elements in the formation and concretion phosphorites of some deposits in the central regions of the R.S.F.S.R. Lit. i pol. iskop. no.3:66-76 My-Je '64. (MIRA 17:11)

1. Tul'skaya ekspeditsiya TSentral'nogo nauchno-issledovatel'skogo gorno-razvedochnogo instituta, Tula.

SOKOLOV, M.P. (Odessa); YASYUCHENYA, V.L. (Odessa)

Water solution of blood for fattening pigs. Veterinariia 39 no.10:71-72 O '62. (MIRA 16:6)

(Blood as food or medicine)
(Swine—Feeding and feeds)

PAHUNAKYAN, V.E.; YASYUCHENYA, V.V.

The RMV-2 traveling machine for ripping frozen ground. Biul. tekh.-ekon.inform. no.8:60-62 '60. (MIRA 13:9)
(Frozen ground) (Railroad engineering)

YASYUCHENYA, V.V., inzh.; PARUNAKYAN, V.E., inzh.

Operation of motorized dump cars at the Korkino open-cut coal mine. Izv. vys. ucheb.zav.; gor. zhur. no.11:157-162 '60. (MIRA 13:12)

1. Chelyabinskiy sovnarkhoz. Rekomendovana kafedroy gornykh mashin i rudnichnogo transporta Sverdlovskogo gornogo instituta.
(Chelyabinsk Basin--Strip mining) (Dump trucks)

PARUNAKYAN, V.E.; YASYUCHENYA, V.V.

Reconstruction of an industrial electric locomotive to a diesel-contact locomotive. Biul.tekh.-ekon.inform. no.10:73-75 '61. (MIRA 14:10)

(Diesel locomotives)

PARUNAKYAN, V.E., inzh.; YASYUCHENYA, V.V., inzh.

Use of diesel-electric locomotives in open-pit haulage. Izv. vys. ucheb. zav.; gor. zhur. 5 no.1:109-111 '62. (MIRA 15:4)

1. Chelyabinskiy sovnarkhoz.
(Mine railroads)

PARUNAKYAN, V.E., inzh.; YASYUCHENYA, V.V., inzh.; LOZINSKIY, V.N., inzh.

Use of a 200 ton electric locomotive in pit haulage. Izv.vys. ucheb.zav.; gor.zhur. 5 no.2:128-130 '62. (MIRA 15:4)

1. Chelyabinskiy sovnarkhoz (for Parunakyan, Yasyuchenya).
2. Trest Korkinugol' (for Lozinskiy).
(Chelyabinsk Basin--Mine railroads)

PARUNAKYAN, V.E., inzh. (Chelyabinsk); YASYUCHENYA, V.V., inzh. (Chelyabinsk); KUTENKO, I.S., inzh. (Chelyabinsk)

Universal track maintenance machine. Put' i put.khoz. 6 no.11:32-33 '62. (MIRA 16:1)
(Railroads—Equipment and supplies)

PARUNAKYAN, V. E.; YASYUCHENYA, V. V.

Machine for replacing crossties and for other operations on railroad tracks. Biul. tekh.-ekon. inform. Gos. nauch.-issl. inst. nauch. i tekh. inform. no.12:61-63 '62. (MIRA 16:1)

(Railroads—Maintenance and repair)

JASYUKEVICHUS, V. I.

USSR/Chemical Technology - Chemical Products and Their Application. Silicates. Glass. Ceramics. Binders, I-9

Abst Journal: Referat Zhur - Khimiya, No 19, 1956, 62307

Author: Jasiukevicius, V., Tucaite, O.

Institution: None

Title: Investigation of Destructive Action of Calcareous Inclusions in Ceramic Body

Original Periodical: Kauno politechn. inst. darbai, Tr. Kaunassk. politekhn. in-ta, 1955, 3, 51-60; Lithuanian; Russian resumé

Abstract: To prevent destructive action of calcareous inclusions in clay bricks ("dutiks") it is recommended to wet the bricks by immersion in water for 15 minutes or by vigorous spraying with water which is more effective. The recommended procedure is effective with calcareous inclusions of dimensions up to 7-8 mm.

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YASYUKEVICHUS, Z.I. Cand Techn Sci -- (diss)"~~The~~ Study of the destructive action of ~~calciferous substances introduced into the~~ calcium inclusions in ceramic crock."
Kaunas, 1958. 16 pp (Min Higher Educ USSR. Kaunas Polytech Inst).
150 copies (KL, 37-58, 111).

JASIUKEVICIUS, V.; JARULAITIS, V.; LASYS, A.; SASNAUSKAS, K.; ZUBAUSKAS, A.; VILPISAUSKAS, V., red.; MONTRIMAS, R., red.; CECYTE, V., tekh. red.

[Production of bricks, tiles, and drainpipes] Plytu cerpiu ir dremu gamyba. [By] V.Jasiukevicius ir kiti. Vilnius, Valstybine politines ir mokslines literaturos leidykla, 1961. 258 p. (MIRA 15:3)

(Bricks) (Tiles) (Drain tiles)

Yasyukov, I. I.

PHASE I BOOK EXPLOITATION 926

Chelyabinsk (Province) Oblastnoye statisticheskoye upravleniye

Narodnoye khozyaystvo Chelyabinskoy oblasti i goroda Chelyabinska; statisticheskiy sbornik (Economy of the Chelyabinsk Oblast and the City of Chelyabinsk; Collection of Statistics) Chelyabinsk, Gosstatizdat, 1957. 167 p. 6,000 copies printed.

Resp. Ed.: Yasyukov, I.I.; Tech. Eds: Trokhman, A.V., Belyayev, G.A., and Osintsev, G.; Eds.: Diyeva, M.I., Zyuzina, A.A., Shigarov, S.Ye., Renev, I.I., Vyazova, I.Ya., Chistova, G.Ya., Chistova, K.Ya., and Nikandrova, N.D.

PURPOSE: This book is intended for economists and economic statisticians.

COVERAGE: The compilation contains the most important figures (both absolute and in percentages) on the economic and cultural development of Chelyabinsk Oblast and the city of Chelyabinsk. The comparative figures are from 1941 or 1945, and in some instance from 1950. The compilation does not contain the goals aimed at by the current (Sixth) Five-Year Plan. The compilation was prepared by the Chelyabinsk Statistical Office. All data (figures) for 1956 are

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preliminary, due to the fact that the compilation was sent to the press in December 1956.

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Economy of the Chelyabinsk Oblast and the City of Chelyabinsk (Cont.) 926

Sown areas under kolkhoz jurisdiction [in thousands of hectares, per type of crop, for the above years] 59

Total sown area by rayons [in thousands of hectares for the above years] 61

Total sown area of grain by rayons [in thousands of hectares for the above years] 62

Total sown area of wheat by rayons [in thousands of hectares for the above years] 63

Total sown area of potatoes by rayons [in hectares for the above years] 64

Total sown area of vegetables by rayons [in hectares for the above years] 65

Total sown area by rayons [in thousands of tons for the above years, under kolkhoz jurisdiction] 67

Total sown area of grain by rayons [in thousands of hectares for the above years, under kolkhoz jurisdiction] 69

Total sown area of potatoes by rayons [in hectares, for the above years, under kolkhoz jurisdiction] 70

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Economy of the Chelyabinsk Oblast and the City of Chelyabinsk (Cont.)

AVAILABLE: Library of Congress

Card 16/16

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1-6-59

2-58-3-10/17

AUTHOR: Yasyukov, I., Head of the Chelyabinsk Oblast' Statistical Administration

TITLE: From the Experience of the Machine-Calculating Station of Chelyabinsk Oblast' Statistical Administration (Iz opyta raboty mashinoschëtnoy stantsii statisticheskogo upravleniya Chelyabinskoy oblasti)

PERIODICAL: Vestnik Statistiki, 1958, Nr 3, pp 66-70 (USSR)

ABSTRACT: The author describes the operation of the machine-calculating station of the Chelyabinsk Oblast' Statistical Administration: centralization and mechanization have been carried as far as possible, and maximum use is being made of keyboard and punchcard calculating machines.

Card 1/1

YASYUKOV, M., podpolkovnik, kand. filosof. nauk

Laws of armed combat and the creative work of the commander. Komm. Vooruzh. Sil 3 no.16:50-57 Ag '63. (MIRA 16:9)

(Military art and science) (Leadership)

YASYUKOV, M., podpolkovnik, kand.filosofskikh nauk

Principles of the development of socialism into communism. Komm. Vooruzh. Sil 4 no.14:54-61 Jl '64. (MIRA 17:9)

ACC NR: AP7005922 (N) SOURCE CODE: UR/0395/67/000/001/0048/0055

AUTHOR: Yasyukov, M. (Candidate of philosophical sciences; Lieutenant colonel)

ORG: none

TITLE: Combat planning

SOURCE: Kommunist vooruzhennykh sil, no. 1, 1967, 48-55

TOPIC TAGS: military operation, military policy

ABSTRACT:
Under the conditions of modern war, the significance of the rocket- and nuclear-weapon capabilities sharply increases. The absence of this capability cannot be compensated by such other advantages as high morale and better combat training. These factors can tip the balance toward victory only in the presence of a rocket and nuclear capability. A new world war could only be a war of coalitions. The conduct of a military effort by many allied armies requires the large-scale planning of combined operations. The Socialist countries have tremendous advantages over the imperialist ones, and during WW II there was disagreement between the U.S., England, and France both before and during such operations. Planning under the conditions of a rocket- and nuclear-weapon capability requires not only the ability to correctly assess various techniques for utilizing equipment, but also a most thorough assessment of such factors as decoying, camouflaging, and

Card 1/2 UDC: none

ACC NR: AP7005922

achieving surprise. Determining the effects of attacks on the enemy is greatly complicated by troop dispersion, absence of a continuous front, and the rapid changing of the situation. Thus, it is possible to conclude that under modern conditions the requirements, significance, and scope of combat-operation planning are expanding while at the same time the maximum flexibility is required when changing plans and their individual elements in connection with a rapidly changing situation. Taking into account this contradiction between the established plan and the requirements of a changing situation is of particular importance in modern warfare. Any attempt to absolutize one or the other side of this contradiction leads to unhappy results. Under modern conditions a computation base is necessary, which may only be a means of high-speed control; this can include electronic computers, radar and infrared equipment, radio, radio-relay and wire communications. [NC]

SUB CODE: 15/ SUBM DATE: none/ ATD PRESS: 5115

Card 2/2

YASYULENIS, A. I.

Dissertation: "Investigation of a Crank-Link Gear Mechanism." Cand Tech Sci, Leningrad Polytechnic Inst, Leningrad, 1954. (Referativnyy Zhurnal--Mekhanika, Moscow, Aug 54)

SO: SUM 393, 28 Feb 1955

YASYULENIS, A.

SOV/124-58-5-5032

Translation from: Referativnyy zhurnal, Mekhanika, 1958, Nr 5, p 13 (USSR)

AUTHOR: Yasyulenis, A. [Jasiulionis, A.]

TITLE: Analytical Investigation of the Kinematics of a Sliding-block/Crank Linkage. Graphic Relationships of the Kinematics and Some Dynamic Properties (Analiticheskoye issledovanie kinematiki krivoshipno-kulisnogo mekhanizma. Graficheskiye zavisimosti kinematicheskikh i nekotorykh dinamicheskikh svoystv) [Skriejikinio kulises mechanizmo kinematikos analitinis nagrinėjimas ir kinematinių bei kai kurių dinaminiu savybių grafinis vaizdavimas] in Lithuanian

PERIODICAL: Liet. žemės ûkio akad. mokslo darbai, Tr. Lit. s.-kh. akad., 1957, Vol 3, pp 37-101

ABSTRACT: An account is given of a kinematic and dynamic investigation of plane sliding-block linkages with different geometric parameters. Included are numerous diagrams which greatly simplify investigation of linkages with given parameters.

V.A. Zinov'yev

1. Cranks--Analysis 2. Dynamics 3. Mechanics

Card 1/1

YASYULENIS, A.I.

25(2) PHASE I BOOK EXPLOITATION SOV/2560

Akademiya nauk SSSR. Institut mashinovedeniya. Seminar po teorii mashin i mekhanizmov

Trudy, tom 18, vyp. 72 (Transaction of the Institute of Mechanical Engineering, USSR Academy of Sciences. Seminar on the Theory of Machines and Mechanisms, Vol. 18, Nr 72) Moscow, Izd-vo AN SSSR, 1959. 44 p. Errata slip inserted. 2,200 copies printed.

Ed. of Publishing House: M.M. Knoroz; Editorial Board: I.I. Artobolevskiy, Academician, Scientific Leader of the Seminar (Resp. Ed.); G. G. Baranov, Doctor of Technical Sciences, Professor; V. A. Gavrilenko, Doctor of Technical Sciences, Professor; V. A. Zinov'yev, Doctor of Technical Sciences, Professor; A. Ye. Kobrinskiy, Doctor of Technical Sciences; N.I. Levitskiy, Doctor of Technical Sciences, Professor; N. P. Rayevskiy, Candidate of Technical Sciences; L. N. Reshetov, Doctor of Technical Sciences, Professor; and M. A. Skuridin, Doctor of Technical Sciences, Professor.

PURPOSE: This collection of articles is intended for engineers interested in the theory of machines and mechanisms.

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COVERAGE: The collection contains three scientific papers presented at a seminar on the theory of machines and mechanisms. The first paper deals with designing plane four-bar mechanisms, the second presents a method of designing governors for tractor diesel engines, and the third deals with the investigation of an inertia-type distributing device used in flour mill plansifters. The book also contains an author index for papers published in Volumes I-XIX, numbers 1-76, and a list of papers published in Volume XVIII of the Transactions of the Seminar on the Theory of Machines and Mechanisms.

TABLE OF CONTENTS:

synthesizing link mechanisms. There are 3 references: 1 Soviet and 3 German.

Grunauer, A.A., Dynamic Synthesis of Governors for Tractor Diesel Engines. 10

The author describes a method of designing spring-loaded flyball governors based on minimizing the mean value of a friction force acting on the governor sleeve. This method makes it possible to improve the dynamic characteristics of a governor and reduce the wear of its component parts. There are 8 references, all Soviet.

Gortinskiy, V.V. On Rotating Conditions of the Inertia-type Distributor in Flour Mill Plansifters 21

The author investigates the motion of an inertia-type grain-distributing device in order to develop a simple and reliable design, requiring no special starting devices. He analyzes the basic equation of motion and determines the minimum starting speed and the conditions for stable rotation of the distributor. There are 3 references, all Soviet.

Transaction of the Institute (Cont.) SOV/2560

Author Index for Papers Published in the Volumes I-XIX, Numbers 1-76, of the Transactions of the Seminar on the Theory of Machines and Mechanisms

Papers Published in Volume XVIII of the Transactions of the Seminar on the Theory of Machines and Mechanisms 33

AVAILABLE: Library of Congress

Card 4/4

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11-30-59

YASYULENIS, A.I. [Jasiulionis, A.I.], dotsent, kand.tekhn.nauk

Graphoanalytic and graphic methods for plotting tachograms of machine-reduction elements. Izv.vys.ucheb.zav.; mashinostr. no.5:25-34 '59. (MIRA 13:4)

1. Litovskaya sel'skokhozyaystvennaya akademiya.
(Machinery, Kinetics of)

YASYULENIS, A.I.

A characteristic of the plane-parallel motion. Trudy Inst.mash. Sem.po.teor.mash. 20 no.77:3-10 '59. (MIRA 13:4)
(Mechanical movements)

S/145/60/000/009/009/017
D221/D304

AUTHOR: Yasyulenis, A.I., Candidate of Technical Sciences, Docent

TITLE: Design of flywheels without auxiliary graphs

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy. Mashinostroyeniye, no. 9, 1960, 83 - 94

TEXT: It is assumed that the graphs of kinetic energy of the machine, and of its reduced moment of inertia are known. The relationship between the force and position or speed is unimportant. The position of the axes of abscissae of above is determined in the course of solving the problem of flywheel. In addition to the two graphs, the following were specified: The average angular speed of the machine, ω_{av} and the coefficient of irregularity of rotation in the drive, δ. The reduced moment of inertia is $I_r = I_f + I_w$, where I_f is the inertia of flywheel, and I_w - that of the machine without flywheel. Therefore, I_r represents I_w when coordinates are

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Design of flywheels without ...

shifted, and it is assumed that it indicates E_f - the ficticious energy if the machine would be driven at ω_o = const. The author gives then the mathematical analysis of the proposed method. In order to eliminate drawing of curve I_w in two scales, an approximate procedure is proposed, which is based on the assumption of $\omega_o = \omega_{av}$. The increased regularity of drive brings closer the curves of E_f at $\omega_o = \omega_{min}$, and $\omega_o = \omega_{max}$ to the line of E_f at $\omega_o = \omega_{av}$. The analysis of these graphs demonstrates that when quantities of second order are neglected, then in the case of sinusoidal character of curves, the error is given by

$$\varepsilon_e = 2\zeta\delta^2 e, \qquad (14)$$

where e is the amplitude of curve of E, and ζ is a coefficient, that depends on the shift between E and E_f. This method can be applied to non-sinusoidal curves as well. The errors in the ordinates of the graphs are due to the relative error of calculation and to

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the absolute error in tracing. The inaccuracy of the plot near the point of tangency introduces an error due to change in the angle of the tangent. The computed results are tabulated. To determine the coefficient δ it is necessary to plot the curve of E_f at $\omega_o = \omega_{av}$ in two positions of contact with the curve of E, which allows measurement of e_o etc. The author uses the stepped series of square root and obtains an equation that defines δ. The proposed variant of integral method involves less work than other procedures, except the method suggested by F. Radinger, but the latter is less precise in the case of modern high speed machines. A numerical example of application of this method is given. There are 5 figures 1 table and 8 references: 7 Soviet-bloc and 1 non-Soviet-bloc.

ASSOCIATION: Litovskaya sel'skokhozyaystvennaya akademiya (Lithuanian Agricultural Academy)

SUBMITTED: March 15, 1959

YASYULENIS, A.I. [Jasiulenis A.], kand. tekhn. nauk, dotsent

Plotting the tachogram of a steady motion at $M(\omega, \varphi)$ and $J = J(\varphi)$ taking into consideration higher order derivatives of angular velocity. Izv. vys. ucheb. zav.; mashinostr. no.9: 29-44 '64. (MIRA 17:12)

1. Litovskaya sel'skokhozyaystvennaya akademiya.

YASYULEVICH, O. S.

YASYULEVICH, O. S.: "The biology of illumination and fertilization of buckwheat under various growth conditions." Acad Sci Ukrainian SSR. Inst of Botany. Kiev, 1955. (DISSERTATION FOR THE DEGREE OF CANDIDATE IN BOLOGICAL SCIENCE)

So.: Knizhnaya letopis' No 15, 1956, Moscow

L 8305-66 EWT(d) IJP(c)

ACC NR: AT5027514 SOURCE CODE: UR/2924/65/005/001/0157/0166

AUTHOR: Yasyuleynis, A. -- Jasiulionis, A.

ORG: Lithuanian Agricultural Academy (Litovskaya sel'skokhozyaystvennaya akademiya)

TITLE: Matrix application to algebraic and some other operations with power series

SOURCE: Litovskiy matematicheskiy sbornik, v. 5, no. 1, 1965, 157-166

TOPIC TAGS: mathematic matrix, matrix element, algebra, Fourier series, power series, matrix operation, SERIES

ABSTRACT: Matrix operations are applied to algebraic and other power series manipulations to obtain algorithms in matrix forms suitable for programming and inverse problem solutions. The power series representation

$$f(x)=\sum_{n=0}^{\infty} a_n x^n=(a)\cdot(x^n)$$

is written in the following matrix notation

$$f(x)=[a]\{x^n\}=[x^n]\{a\}.$$

The following algebraic operations are discussed: multiplication of series

$$[c]=[a][D(b)]=[b][D(a)],$$

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ACC NR: AT5027514

$$[D(b)]=\begin{bmatrix} b_0 & b_1 & b_2 & \dots \\ 0 & b_0 & b_1 & \dots \\ 0 & 0 & b_0 & \dots \end{bmatrix};$$

division of series $[w]=[a][D(b)]^{-1}$,

$$[D(b)]^{-1}=\begin{vmatrix} b_0^{-1} & -b_0^{-2}d_1 & \dots & (-1)^{n-1}b_0^{-n}d_{n-1} \\ 0 & b_0^{-1} & \dots & (-1)^{n-2}b_0^{-n+1}d_{n-2} \\ 0 & 0 & \dots & (-1)^{n-3}b_0^{-n+2}d_{n-3} \\ \dots & \dots & \dots & \dots \end{vmatrix};$$

raising to a power $[a^{(k)}]=[a][D(a)]^{k-1}$

where $1 \leq k \leq q-1$; negative power series; fractional power series, and series substitutions of the form

$$\psi(y)=\sum_{n=0}^{\infty}\beta_n y^n=[\beta]\{y^n\},$$

$$y(x)=\sum_{n=0}^{\infty}\alpha_n x^n=[\alpha]\{x^n\}.$$

Each study is illustrated with several numerical examples. For a radius of convergence $R \geq 1$ trigonometric formulae are used to carry out the transformations $x = \cos\alpha$ and $x = \sin\alpha$. The matrix forms of series and polynomial transformations give algorithms

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L 8305-66

ACC NR: AT5027514

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of simple inverse transformations. As an application, matrix operations are made with Chebyshev polynomials. Orig. art. has: 53 equations.

SUB CODE: 12/ SUBM DATE: none/ ORIG REF: 002/ OTH REF: 001

Card 3/3

YASYUNAS, A.P.

More efficient inspection of the observance of standards is needed. Izm.tekh. no.5:59 My '62. (MIRA 15:6)
(Voronezh Province—Testing laboratories)

SUDOPLATOV, L.V.; YASYUNAS, B.V.; BERKOVICH, G.Ya.

Transfer of lime cupolas to firing with natural gas. Metallurg 7 no.3:16-19 Mr '62. (MIRA 15:2)

1. Metallurgicheskiy zavod im. Petrovskogo.
(Cupola furnaces) (Gas, Natural)

LOSHKAREV, M.A.; YASYUNAS, R.M.

Kinetics of nitrosation of secondary aromatic amines. Part 2: Catalytic action of halide ions. Izv.vys.ucheb.zav.;khim. i khim.tekh. 6 no.2:236-242 '63. (MIRA 16:9)

1. Dnepropetrovskiy khimiko-tekhnologicheskiy institut imeni F.E.Dzerzhinskogo, kafedra fizicheskoy khimii.
(Amines) (Nitrosation) (Halides)

L 36880-66 EWT(m)/EWP(j) WW/JW/RM (A)
ACC NR: AP6017652 SOURCE CODE: UR/0073/66/032/001/0050/0055

AUTHOR: Yasyunas, R. M.; Burmistrov, S. I.

ORG: Dnepropetrovsk Institute of Chemical Technology (Dnepropetrovskiy khimiko-tekhnologicheskiy institut)

TITLE: Indirect method of determining thermodynamic [equilibrium] constants for nitrosylation of amines and for formation of esters of nitric acid

SOURCE: Ukrainskiy khimicheskiy zhurnal, v. 32, no. 1, 1966, 50-55

TOPIC TAGS: equilibrium constant, esterification, nitrogen compound, aniline, organic nitroso compound

ABSTRACT: An indirect method of determining equilibrium constants for such reversible reactions as nitrosylation of aromatic amines and nitrous acid-alcohol interaction (esterification) is presented. The method consists of measuring the equilibrium constant for tropeolin 00-nitrosylated tropeolin 00 in the presence of added amines or alcohols (or other substances which interact with HNO_2). Experimentally, the equilibrium was first determined for a solution containing $1 \cdot 10^{-5}$ moles/l

UDC: 541.122.3+547.551+547.261.4

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ACC NR: AP6017652

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tropeoline in 0.2 NH_2SO_4-0.2 NNaCl-$4 \cdot 10^{-5}$ $NNaNO_2$ held for 1 hour at 20°C. This solution was then mixed with an equivoluminar solution of amine or alcohol and the new equilibrium nitrosotropeolin 00 concentration was determined colorimetrically. The equilibrium constants Kp determined by the indirect method for methylaniline, benzoaniline, benzyl-ortho-toluidine, aniline-acetaniline, methanitrometylaniline, diphenylamine, 4-chloro-2-aceto-amidodiphenylamine, and nitroso esters of methyl-, ethyl-, and isopropyl alcohols are tabulated. For the nitroso esters of alcohols a good agreement was found with the equilibrium data reported in the literature. It is claimed that the method may serve as an analytical tool in determination of concentrations of amines, alcohols, and other compound which react irreversibly with HNO_2. Orig. art. has: 2 figures, 3 tables and 5 formulas.

SUB CODE: 07/ SUBM DATE: 12Oct64/ ORIG REF: 004/ OTH REF: 003

LS

Card 2/2

26502
S/044/61/000/004/013/033
C111/C222

AUTHOR: Yatayev, M.

TITLE: On the form of the solution of an infinite system of ordinary linear differential equations with constant coefficients

PERIODICAL: Referativnyy zhurnal. Matematika, no. 4, 1961, 43, abstract 4 B 223. ("Uch. zap. Alma-Atinsk. gos.ped.in-t", 1958 (1959), 12, no. 2, 82-84)

TEXT: The author asks whether for infinite systems

$$\frac{dx_s}{dt} = \sum_{k=-\infty}^{\infty} p_{sk}x_k \qquad (s = 1,2, \ldots.)$$

the solution can also be sought in the form $x_s = a_s e^{\lambda t}$ $(s = 1,2,\ldots)$ as in the case of finite systems, where λ is the root of the equation $|p_{sk} - \delta_{sk}\lambda| = 0$ $(s,k = 1,2,\ldots)$. The negative answer to this question in the general case is shown by some considerations and illustrated by examples. There are 8 references.

Card 1/1 [Abstracter's note : Complete translation.]

S/031/61/000/007/001/001
B116/B201

AUTHORS: Yatayev, M., Kurmashev, D., Candidate of Physics and Mathematics

TITLE: A critical case of stability of a stabilized motion according to Lyapunov

PERIODICAL: Akademiya nauk Kazakhskoy SSR. Vestnik, no. 7 (196), 1961, 99-104

TEXT: A study has been made of a system of three differential equations, whose characteristic equation in first approximation has a zero of third order. A group of solutions in first approximation is assumed to correspond to this zero. After some transformations the said system is written as $dx/dt = y$, $dy/dt = z$, $dz/dt = Z(x, y, z)$ (3). $Z(x, y, z)$ is expanded in a powers series of z: $Z(x, y, z) = f_0(x, y) + zf_1(x, y) + z^2 f_2(x, y) + \ldots$. If here $f_0(x, y) \equiv 0$, (3) will have an unstable particular solution: $x = c_1 t + c_2$, $y = c_1$, $z = 0$. Therefore, the undisturbed motion determined by (3) is not stable in this case. If $f_0(x, y) \not\equiv 0$ and

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$f_c(x, y) = \varphi_c(x) + y\varphi_1(x) + y^2\varphi_2(x) + \ldots$, (3) will acquire the form $dx/dt = y$, $dy/dt = z$, $dz/dt = \varphi_0(x) + y\varphi_1(x) + y^2\varphi_2(x) \ldots + z f_1(x, y) + z^2 f_2(x, y) + \ldots$ (4). The case with $\varphi_0(x) \equiv 0$ is first examined next. The following is assumed: $f_1(x, y) = \psi_0(x) + y\psi_1(x) + y^2\psi_2(x) + \ldots$. The system to be investigated then reads: $dx/dt = y$, $dy/dt = z$, $dz/dt = y\varphi_1(x) + y^2\varphi_2(x) + \ldots + z[\psi_0(x) + y\psi_1(x) + \ldots] + z^2 f_2(x, y) + \ldots$ (5). Undisturbed motion is shown not to be stable if the series of $\varphi_1(x)$ or $\psi_c(x)$ begin with odd powers, or with even powers the coefficients of which are positive. If the series of the same functions begin with even powers with nonpositive coefficients, two cases must be distinguished (since $\varphi_1(x) \equiv 0$): 1, $\varphi_1(c) < 0$ and $\psi_0(c) < 0$; 2, $\varphi_1(c) < 0$ and $\psi_0(c) \equiv 0$; the undisturbed motion will be stable in both cases. The case is now examined where, in system (5), $\varphi_1(x) \equiv 0$ and $\psi_0(x) \equiv 0$, and on the basis of theorem I [Abstractor's note: not given here] by G. V. Kamenkov (Ref. 2: Ob

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ustoychivosti dvizheniya. Trudy KAI, 1939, no. 9) the undisturbed motion is shown not to be stable. The case is finally examined where, in system (4), $\varphi_0(x) \neq 0$. System (4) is transformed, and the inequality by Hurwitz is written:

$$-\psi_0(c) > 0,\ -\varphi_0'(c) > 0,\ \psi_0(c)\cdot\varphi_1(c) + \varphi_0'(c) > 0 \qquad (14).$$

In this case, the undisturbed motion expressed by (4) will not be stable if 1), the series of even only one of the functions $\psi_0(x)$, $\varphi_0'(x)$ begins with odd powers of x; 2), the series of both functions $\psi_0(x)$, $\varphi_0'(x)$ begin with even powers, but the coefficient of even only one of them is positive with the lowest power of x; 3) while the sum of the lowest powers of the series of $\psi_0(x)$ and $\varphi_1(x)$ is larger than the lowest power of the series of $\varphi_0(x)$ or is equal to it, the coefficients of the lowest powers of x are such that the sign of the last inequality in (14) changes. The undisturbed motion will be stable if the series of the functions $\psi_0(x)$ and $\varphi_0'(x)$ begin with even powers with negative coefficients and are such that the last inequality in (14) is satisfied with an arbitrary and

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sufficiently small c. K. P. Persidskiy, Academician of the AS Kazakhskaya SSR, is thanked for his assistance. There are 7 Soviet references.

KULKASHEVA, M.; YATAYEV, M.

Distinguishing "Dangerous" and "safe" boundaries of the zone of stability of automatic control systems. Izv. AN Kaz. SSR. Ser. mat. i mekh. no.9:96-105 '61. (MIRA 14:3)
(Stability) (Automatic control)

YATAYEV, M.; KURMASHEV, D.

Investigation of critical instances in the stability of steady motions. Vest.AN Kazakh.SSR 18 no.3:54-61 Mr '62. (MIRA 15:3)
(Motion)

YATAYEV, M.

Theorems of Liapunov's second method. Trudy Sekt. mat. i mekh. AN Kazakh. SSR 2:32-36 '63. (MIRA 16:10)

YATAYEV, M.

"Several Critical Cases of Stability of Solutions of Differential Equations in Normed Spaces", Izv. AN Kazakh. SSR, Ser. Astron., Fiz., Matem. i Mekhan., No 3, 1953, pp 3-40.

In the first section the author studies the stability of the solution $x = y = 0$ of a system of differential equations $\frac{dy}{dt} = f(t,x,y)$, $\frac{dx}{dt} = F(t,x,y,)$ whose right parts are abstract functions of some complete, linear, normed space E. In the second section the author investigates the effect of imposing certain conditions on the right-hand members of the equations. In the third section he discusses a complex equation involving limits. (RZhMat, No 1, 1955)

SO: Sum. No. 443, 5 Apr. 55

L 17685-65 EWT(d)/EWA(m)-2 LJP(c)/AFMDC/AFWL/ASD(a)-5/AFETR/ESD(dp)

ACCESSION NR: AP4049394 S/0361/64/000/002/0003/0007

AUTHOR: Yatayev, M. 16 B

TITLE: On an investigation of one critical stability case

SOURCE: AN KazSSR. Izvestiya. Seriya fiziko-matematicheskikh nauk, no. 2, 1964, 3-7

TOPIC TAGS: differential equation, stability condition

ABSTRACT: It is shown that the behavior of each term in the right side of the equation

$$\frac{dx}{dt} = y,\ \frac{dy}{dt} = z,\ \frac{dz}{dt} = F(x, y, z) = f_0(x, y) + zf_1(x, y) + \cdots, \quad (1)$$

to which a stationary system of three differential equations with a characteristic equation having a zero root can be reduced by a stability-conserving transformation, affects the stability of the system

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as a whole. This is done by introducing the transformation

$$y = y_1[1 + Y(x, y)] = y_1[1 + \theta_0(x) + y_1\theta_1(x) + \ldots].$$

$$z = z_1[1 + Z(x, y_1, z_1)]\left(1 + Y(x, y_1) + y_1\frac{\partial Y}{\partial y_1}\right) + y_1^2(1 + Y)\frac{\partial Y}{\partial y}, \quad (2)$$

where $Y(x, y_1)$ and $Z(x, y_1, z_1)$ are holomorphic functions of their arguments, vanishing with zero arguments. The system (1) then transforms into a system in which solution-possessing equations can be written for the functions Y and Z. Several theorems concerning the stability of the initial system are then proved. Orig. art. has: 11 formulas.

ASSOCIATION: None

L 17685-65

ACCESSION NR: AP4049394

SUBMITTED: 00 ENCL: 00

SUB CODE: MA NR REF SOV: 005 OTHER: 000

Card 3/3

YATAYEV, M.

SUBJECT USSR/MATHEMATICS/Differential equations CARD 1/3 PG - 481
AUTHOR JATAJEV M.
TITLE On a countable system of differential equations in the L_p.
PERIODICAL Izvestija Akad.Nauk Kazach.SSR 4, (8), 12-23 (1956)
reviewed 1/1957

The author considers the countable system of differential equations

$$\frac{dx_s}{dt} = \omega_s(t,x_1,x_2,\ldots) \qquad (s=1,2,\ldots). \tag{1}$$

Here $t \geqslant 0$ is the independent real variable and the functions $x_s = x_s(t,\varphi)$ are sought which for every fixed value $t = t_o$ relative to φ of the interval $[\alpha,\beta]$ belong to the function class of L_p. It is proved that under certain assumptions on the continuity of the ω_s and by satisfaction of the Cauchy-Lipschitz condition by ω_s the system (1) possesses a unique equicontinuous solution $x_s = x_s(t,\varphi)$ $(s=1,2,\ldots)$ which assumes the values $x_s = x_s^o(\varphi)$ for all t of $t_o+h \geqslant t \geqslant t_o$. For h an upper bound is given.
Further it is shown that the second (direct) Liapunov method of the examination of stability can easily be extended to countable systems in the L_p. For the

considered case the author gives formulations of the notions Liapunov function, system of first approximation, characteristic number etc. A critical case of stability is considered: Let be given the system:

$$\frac{dx_s}{dt} = \sum_{k=1}^{\infty} a_{sk}(t)x_k + L_s(t,x_1,\dots y_1,\dots) \tag{2}$$

$$\frac{dy_j}{dt} = \sum_{k=1}^{\infty} b_{jk}(t)y_k + \sum_{k=1}^{\infty} \omega_{jk}(t)x_k + N_j(t,x_1,\dots y_1,\dots)$$

$(s=1,2,\dots), \quad (j=1,2,\dots),$

where the following conditions are satisfied in g ($t \geq 0$, $|x_s| < R$, $|y_j| < R$):

1. $a_{sk}(t)$, $b_{jk}(t)$ and $\omega_{jk}(t)$ are equicontinuous in t; 2. $\sum_{k=1}^{\infty} |\omega_{jk}(t)| \leq \omega_j(t) \leq \omega$;

3. Every bounded and equicontinuous solution of $\frac{dx_s}{dt} = \sum_{k=1}^{\infty} a_{sk}(t)x_k$ $(s=1,2,\dots)$ satisfies the inequation $\|x_s(t,\varphi)\| \leq \|x_s(t_o,\varphi)\| \cdot B\, e^{-\alpha(t-t_o)}$ for all

Izvestija Akad.Nauk Kazach,SSR 4, (8), 12-23 (1956) CARD 3/3 PG - 481

$t \geq t_0 \geq 0$, $B > 1$, $\alpha > 0$ - constants. 4. Every bounded and equicontinuous solution of $\frac{dy_j}{dt} = \sum_{k=1}^{\infty} b_{jk}(t)\, y_k$ $(j=1,2,\ldots)$ satisfies the inequation $\| y_j(t,\varphi) \| \leq \| y_j(t_0,\varphi) \| \cdot P(t-t_0)$ for all $t_0 \geq t \geq 0$ and $P(t_0-t)$- a polynomial with positive coefficients which do not depend on t_0 and φ; 5. $|L_s(t,x_1',\ldots y_1') - L_s(t,x_1'',\ldots y_1''\ldots)| \leq A u^{1+\delta} \Delta u$; $|N_j(t,x_1',\ldots y_1',\ldots) - N_j(t,x_1'',\ldots y_1'',\ldots)| \leq A u^{1+\delta} \Delta u$, where A and δ are constants and $u = \sup \{|x_s'|, |y_j'|, |x_s''|, |y_j''|\}$, $\Delta u = \sup \{|x_s' - x_s''|, |y_s' - y_s''|\}$. If the conditions 1-5 are satisfied, then the trivial solution $x_1 = x_2 = \ldots = y_1 = y_2 = \ldots = 0$ of (2) is conditionally stable. The initial conditions can be given arbitrarily but must only be sufficiently small. This conditional stability is uniform and asymptotic.

YATAYEV, M.

SOV/44 - 58 - 4 - 2619

Translation from: Referativnyy zhurnal, Matematika, 1958, Nr 4, p 6 (USSR)

AUTHOR: Yateyev, M.

TITLE: A Great Russian Mathematician (Velikiy russkiy matematik)

PERIODICAL: Vestn. AN Kaz SSR, 1957, 13 Nr 9, pp 118-121

ABSTRACT: An article on A.M. Lyapunov (1857-1918) in connection with the 100th anniversary of his birth.

MIRA card — YATAYEV, M.

Card 1/1

YATAYEV, M. Ya.

Characteristic numbers of systems of linear differential equations. Izv.AN Kazakh.SSR.Ser.mat.i mekh. no.8:98-103 '59. (MIR 13:5)

(Differential equations, Linear)

YATAYEV, M. Ya.

Characteristic Numbers of the Systems of Linear Differential Equations
p.29

TRANSACTIONS OF THE 2ND REPUBLICAN CONFERENCE ON MATHEMATICS AND MECHANICS (TRUDY VTOROY RESPUBLIKANSKOY KONFERENTSII PO MATEMATIKE I MEKHANIKE), 184 pages, published by the Publishing House of the AS KAZAKH SSR, ALMA-ATA, USSR, 1962

End

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